

# Quick Strokes

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SUMMER, 1983

## DIF President's messages

The speech for the Vermont Court reporters went very well. In spite of the fact that these fine keyboarders type with speeds up to and exceeding 100 wpm's they were still extremely interested in the fatigue feature of the Dvorak Keyboard. We have requests already from them to convert their typewriters to Dvorak. I have contacted Brian Trask who has agreed to do the job whenever they are ready. In the course of the meeting with the court reporters we realized that an approach to the Vermont government was in order. We will speak to that body soon.

In addition we are beginning a contest and reward situation at Otter Valley Union High School in Brandon, Vermont, next fall. We would like to hear from other schools who have done this so that we can improve on our approach. Contact Virginia deG. Russell, 11 Pearl St., Brandon, VT 05733, (802) 247-6020 or 247-5759.

New Hampshire College in Manchester, New Hampshire, a fine private college (business) has asked yours truly to speak on June 15th. The subject will be regarding research which has been done on the keyboard. The group will be a graduate seminar under the tutelage of Dr. Kalisky, head of Graduate Studies at New Hampshire college.

FLASH — the entire computer system at Harvard University is now capable of applying the Dvorak keyboard. It is all so simple to do. On the system, the command `stty dvorak` will cause all terminal input to be mapped so that the terminal appears to have a simplified keyboard. `stty-dvorak` will restore the conventional keyboard arrangement.

As we observed the user Groups rising up all over the world (Computer Users) we realized that it would be very wise to begin a DVORAK USER GROUP in Boston and the Northeast. That group is well under way with a lot of excitement. This is all a DIF project and we believe that it will draw a whole new breath of life to our keyboard and its users. More next issue in Quick Strokes published under the able baton of Phil Davis. Anyone wanting more information on the User Group in the Boston Northeast area please contact Virginia deGanahl Russell, Dvorak International Federation, 11 Pearl Street, Brandon, VT 05733, or phone (802) 247-6020 or 247-5759.

Brian Trask is again busy converting Selectric Typewriters. As a result of the talk DIF gave to the Vermont Court Reporters, Brian has been able to do some conversions on his home territory. Congratulations, Brian, on your fine workmanship.

Richard McMahon of Arlington contacted the DIF office this week on the Dvorak keyboard. As well, Seasoned Systems, Box 3036, 417 Lakeshore Lane, Chapel Hill, North Carolina 26514, has developed software for the IBM PC. They are doing a fine job. Welcome aboard to the Helwigs of Seasoned Systems.

Keytronics in Spokane, Washington, has produced a DVORAK keyboard for the IBM PC. The Keytronics people are the largest makers of custom keyboards in the country.

DIF is meeting with the Boston Public School systems later this month. Virginia Russell is meeting with one of the directors. She will report through Quick Strokes in September.

## Apple Computer claims kids can't wait

A tax-credit law approved by the California legislature has smoothed the way for Apple Computer Corporation's large-scale giveaway program of which elementary and secondary schools are the beneficiaries. The name of the program is "Kids can't wait."

Children do seem to be no better at waiting than at hurrying up. The point is that it is better public and private policy not to make them wait too long for keyboard training. Experience at the Carmel Middle School, in California, has shown that sixth graders can attain 50-word-a-minute competence in thirteen weeks. The skill is immediately useful for their other school subjects. These are Al Kolb's students, those who choose the Dvorak arrangement.

Unless the classroom Apples are an off model, all 9,250 of them are just as readily arranged in Dvorak style as in conventional. *Quick Strokes* commends both the legislature and the computer maker.

## Bibliographic notes

Marya Repko draws our attention to another article from the Dvorak keyboard of the late R. S. Parkinson. It is "The New Popularity of the Dvorak Simplified Keyboard," by Bob McCauley and Bob Parkinson, and appeared in *Computers and Automation* in 1971 November. C & A is now *Computers and People*.

## Variations on a theme — keyboard rearrangement for the Commodore Vic 20

In a telephone conversation with Steve Metz, of Santa Cruz, California, we have learned that the 53 keys on the board of the Commodore Vic 20 are assignable to any character or function, according to how the computer is programmed. The X4.22 American National standard for keyboard arrangements, for instance, shows arrangements for four sets of characters. It is not only possible, but likely, that applications will be found for the same four sets in layouts for left and right one-handed input.

Mr. Metz was ready to put all these arrangements, or for that matter, as many as ninety others, into a cartridge. He expected to be ready soon with the cartridge and the accompanying booklet.

The Metz address is 3425 Mission Drive, Santa Cruz, California 95065. Telephone number, 408-476-5059.

## Outgoing mail

The letter to the editor of the *Sacramento Union* which follows was inspired by an article on the alternate (Dvorak) keyboard arrangement by Gregory Lamb, of the *Christian Science Monitor*. It was syndicated by the *Los Angeles Times* wire service.

The local angle on the Gregory Lamb dispatch that appeared in the *Union* on Sunday, June 5, 1983, B7, is that two of the members of the subcommittee, X4DSK, that elaborated the new standard arrangement for alphanumeric keyboards are your neighbors Brad J. Lessley, Sacramento, and Philip Davis, West Sacramento.

Several other Californians also served on this working group.

The contrast between the elegant sophistication of the other modules of information processing devices and the crudity and naivety of the conventional keyboard is well known. The sponsor of the parent committee is the Computer and Business Equipment Manufacturers' Association, headquartered in Washington, DC. Like the American National Standards Institute, CBEMA is a combination in restraint of trade — not an illegal one, however, because it refrains from restraining trade "too much."

The new standard does not rob the conventional keyboard arrangement of its standard status. The alternate standard is ANSI X4.22-1983; the conventional standard is ANSI X4.23-1983.

In arriving, by negotiation and compromise, at the alternate standard arrangement, X4DSK based its work frankly on the Dvorak arrangement, the patent on which had expired in 1959. Our object was to define the alternate arrangement in such a way that the standard would be followed. We knew at the start that the layman's cast-iron intuition holds that storage in the audiovisual memory somehow facilitates storage in the kinaesthetic memory. Hence, the digit ranks in the companion standards are identical.

There is no objection to the "hunt and peck" phrase in the head on the Lamb story. Of course, every beginner seeks and strokes, and a true beginner is almost a typical user operator of a personal computer. The difference is that the seek-and-stroke phase is shorter and easier if the arrangement is the ANSI alternate.

The term "alternative" was rejected by the institute on grounds that that implies that the arrangement has to be always one way or always the other. "Alternate" implies that every operator can have both or either, which is indeed the case with most computers.

## Good tactic — a letter to the press

Charles Turnbull, of Old Lyme, Connecticut, courteously submits a draft of a letter intended for publication in the *New London Day*, too long for *Quick Strokes* but well reasoned and well put. His point: a novelty like the alternate keyboard arrangement may indeed be worthy of consideration; whereas, the conventional arrangement has nothing going for it but habit and custom.

Turnbull's computer is an Epson QX-10 with dot matrix printing. When he wrote, it had not yet been converted over to Dvorak but, he says, "it will be done soon."

## Another county heard from

The three rank diagram shown below is the work of Marya Repko, of Dalkey, County Dublin, Ireland. She asks for comment, and the address is 2 Vico Terrace. Quick Stroke's busy editor will try to comply, in tedious detail, in due time. For now, we only say that all the character locations that she shows were surely considered by W. B. Dealey and August Dvorak and probably also by Frank and Lillian Gilbreth.

Although Mrs. Repko calls her changes improvements, she writes, "I finally converted my Apple II to Dvorak," not, please note, to Repko.

/	,	.	P	F	Y	G	N	L	C
A	O	E	I	U	D	H	T	R	S
;	Q	J	K	W	B	M	X	V	Z

## Scientific insight

"I have several friends who have purchased a Kay Pro computer and are interested in DSK," writes Stanley R. Winter, of Corona Del Mar, California. "Does anyone have any information about how to obtain DSK as an option (software or hardware)?" Winter is an instructor in chemistry at Golden West College, Huntington Beach.

"Keep up the good work!" he continues. "I agree with Virginia Russell. The confluence of typing machines that do not have to be dedicated to one keyboard and many new people wanting to learn to type, particularly people of a type (computer purchasers) that are interested in new ways of doing things, makes it a pivotal time in the history of the Dvorak movement.

"I commend you for your efforts to improve our society's productivity, and ultimately the human condition, by promoting the Dvorak keyboard. There is a better way!"

Winter reports an acquaintance who has already programmed his own TRS-80 for Dvorak input and is at work doing the same on a Kay Pro.

## D I F on TV

R. E. Morton reports from Chicago that Virginia Russel, Dvorak federation president, appeared in a segment that was shown on Channel 9 in that area on 1983 June 13. This would mean that the topic was the alternate keyboard arrangement and that a videotape is available somewhere. The programming executive at your own favorite station can find out where, or you can, by calling one of the numbers for DIF that appear elsewhere in this issue.

## Bibliographic note

In *The Office*, 1975 May, pages 18 and following: an article by W. L. Coggeshall and H. M. Marchuk, "The definition and Range of Word Processing Equipment."

"The simpler the machine is to learn and the quicker the operator can achieve intended productivity, the less the installation and startup costs." . . . "Many vendors modify typewriters to make particular components more durable, with some going so far as to replace entire assemblies (e.g., the keyboard.)"

## Sources for software to convert to the alternate keyboard arrangement

Below is a list of likely sources for disks to convert various makes and models of computer to an arrangement of characters on the keyboard that will correspond to, or approximate, the ANSI X4.22-1983 standard, called alternate to its conventional companion standard, ANSI X4.23-1983. Venders may recognize the term Dvorak (pronounced Duh-VOR-ak) or Simplified or ASK, more readily than alternate.

You will have to ask each vender what makes, models, or versions of a model he can supply a disk for and what the prices are. These data change on short notice. Not all disks for conversion to Dvorak conform to the AN standard, but all should be close enough so that you can learn out of the Smith-Corona *Short Course*, the *Simplified Supplement*, *Synergistic Typing* (if you can get hold of one of those), or the ProSoft *Dvorak Tutor*.

IBM Dvorak is a little different from the AN standard, theoretically slightly better than the standard and, in the *Quick Strokes* opinion, also better practically.

Southern California Research Group, 7709 Bradford Dr., Goleta, CA 93117, 805-685-1931.

ProSoft, Box 839, North Hollywood, CA 91603, 213-764-3131.

FBN Software, 1111 Sawmill Gulch Rd., Pebble Beach, CA 93953, 408-373-5303.

Ronald S. McCuiston, 5795 Adelyn Rd., Pensacola, FL 32504.

Kevin E. FitzMaurice, 4030 Hamilton St., Omaha, NE 68131.

ResiCorp, 1108 Valencia St., Dallas, TX 75223.

John S. Hoffman, Selective Software and Training, 307 D St., SE, Washington, DC 20003.

Jon Etherton, Spokane, Washington, try 509-624-8474, noon to 3 p.m., 509-455-7178, 4 p.m. to midnight.

THE PARKINSON REPRINT — Eight pages from *Computers and Automation* for 1972 November, by the late R. S. Parkinson, titled "The Dvorak Simplified Keyboard: Forty Years of Frustration," tellingly illustrated. At Quick Strokes, P.O. Box 643, West Sacramento, CA 95691, \$2.50 or, in California \$2.65.

**FOR SALE:** Almost new SCM Coronomatic 2200 with ASK Dvorak keyboard. Carrying case and short ASK typing course manual included, \$300 or best offer. Katie Collins (219-234-0131 or P.O. Box 4123, South Bend, IN 46634).

**SMITH-CORONA'S SHORT COURSE** for the American Simplified Keyboard (ASK) Typewriter, by August Dvorak, now in stock at Quick Strokes, P.O. Box 643, West Sacramento, CA 95691. Per copy \$5 postage paid. In California, please add 30 cents sales tax. Conforms to AN Standard X4.22.

IN MINT CONDITION — A few copies of the seminal work *Typewriting Behavior*, by Dvorak, Dealey, Merrick, and Ford. Hard cover, 521 pages including index and appendix, it comprises the team's report to the Carnegie Foundation on typing teaching, typing learning, and machine design. \$30 at Quick Strokes, P.O. Box 643, West Sacramento, CA. To California addresses, \$31.80.

**STARTING MANUAL FOR ALTERNATIVE KEYING** — Titled *Simplified Keyboard Supplement* and written by the late, great August Dvorak and others, it contains Lessons 1 to 5 and 16 to 19.

It merges with any full-length typing manual or with practice material of your choice. Three dollars at Quick Strokes, P.O. Box 643, West Sacramento, CA 95691. In California, add 18¢ tax.

**DVORAK SELECTRIC ELEMENT** — Please specify pica or elite type; please specify whether for a Selectric, or a Selectric I or II, or a Selectric III. Arrangement is close to the classic Dvorak, digits reading, left to right 7, 5, 3, 1, 9 for the left hand, and right to left, 8, 6, 4, 2, 0 for the right hand. \$111 dollars at Quick Strokes, P.O. Box 643, West Sacramento, CA 95691, telephone 916-446-3377. A starting manual, the *Simplified Keyboard Supplement*, is included. Two sheets of 77 half-inch round press-on labels with the alphabet, extra vowels, punctuation, and digits are included. Pairing of digits and special symbols corresponds to the Dvorak Selectric arrangement. Delivery in two weeks after receipt of order and payment. In California, add 6% tax.

## Georgia verbatim reporter-transcriber continues search for equipment to match skill

By Howard M. Hudson

I hate to give up my nine-pitch typing and take about a five-percent payout (we are paid by the page), on a Selectric II. I may, however, do just that.

The only electronic machine that is out with a court reporter's ratchet is the Canon 500, and I can't get anybody to work on the microchip to convert it to ASK for me. But I can on the Adler or Royal electronics — but they don't have the reporter's ratchet and I would have to have my office furnish me with different ruled paper.

A friend here in Atlanta converted to ASK ten years ago when I came to town from Phoenix. He is a superb typist (about 110 or so). He tried Radio Shack's word processing machine, and it slowed him down! He's back with his Selectric.

(Edit note: Hudson's mail address is 1105-R Clairmont Ave., Decatur, GA 30030.)

## Yes, daisy wheel conversion can be a do-it-yourself job

Via DIF headquarters comes this from Lt. Jeff Mitchell, 660 Seagull Drive, Satellite Beach, Florida 32937: He has resoldered the type slugs on the petal tips of a daisy wheel to produce his own. He has sent to Virginia Russell a letter written with the new arrangement. "It looks good," she says. Mitchell invites anyone who might want to do this, to consult him.

## Sociologist takes hold in Maryland

By Joshua B. Malks, ACSW

I just purchased a piece of software called Smartkey, from Heritage Software in California. It makes it possible to reconfigure the keys of any CP/M computer.

With the program, they include a file already set up to reconfigure the keyboard to the DSK. You've mentioned the availability of similar products for the Apple; thought you'd like to know that the large number of CP/M business machines can do it too!

I'll experiment and keep you posted.

(Mr. Malks is executive director of the Jewish Community Center of Greater Baltimore, Owings Mills, Maryland.)

## Note from a friend and colleague

Phil, As you know, I'm out of the Dvorak mainstream, but I cannot ignore a plea for backing such a great cause. I wish we had been able to continue here as we had started. — Chris.

(Chris is C. C. Christensen, an executive of the Executive Department of the State of Oregon. Our information is that the Dvorak development is continuing there, although at a slower pace than originally contemplated.)

## Address for Heritage

The Smartkey program is described as one that tucks itself away just below the CCP and allows you to redefine the codes generated by all the keys on your keyboard. Chris Terry, writing in *Microsystems* for 1983 April, page 88, says, "... if you want to use a DSK (Dvorak Simplified Keyboard) layout, do not despair."

Terry's address is 324 East 35th St., New York 10016. The

**IN STOCK AGAIN** — Reprint of the landmark article "The Dvorak Simplified Keyboard: Forty Years of Frustration", from *Computers and Automation* (now *Computers and People*), by the late R. S. Parkinson. Eight pages, illustrated, analyzing the faults of the conventional arrangement and the merits of the better one and accounting in part for the latter's slow headway in the typewriter era, before the boom in personal and small-office computers. Dated 1972. At Quick Strokes, P.O. Box 643, West Sacramento, CA 95691, \$2 plus, in California, 12 cents tax, plus, everywhere, 50 cents for postage and handling.

magazine is published by Ziff-Davis at One Park Ave., NY, same zip. The alert reader of Quick Strokes is Brendan J. Welch, of Bedford, Massachusetts. The vender of Smartkey is Heritage Software, 2130 South Vermont Ave., Los Angeles, CA 90007, telephone 213-737-7252.

## A handsome plaque and all about it

The letter is on X3 stationery. The scope of X3 is Information Processing Systems. It is an American National Standards committee, operating under the procedures of the American National Standards Institute and sponsored by the Computer and Business Equipment Manufacturers' Association.

X3 has absorbed another committee which was called X4 and had the scope of Office Machines and Supplies. It was as an ad hoc working group and under the X4 chairmanship of J. P. Ancona that the Dvorak Standard Keyboard Committee was set up and carried on its work. Hence the designation of the standard as X4.22.

The letter is signed by Catherine Kachurik as director of the ANSI secretariat of CBEMA. It reads,

"Enclosed is a small token of the Secretariat's appreciation for all your work in making the keyboard a standard. I hope that your feelings of accomplishment and satisfaction were equally matched against all the hard work it took to get to the end. Sincere best wishes and thanks!"

The token is a handsome wood plaque of nine-by-seven-inch dimensions with a gavel in high relief and with plates attached bearing the CBEMA legend on one and appreciation to X4DSK and its chairman on the other.

In turn, I wish to thank Catherine personally and her staff, Joe Ancona personally and his staff and the X4 committee membership, as well as the far-sighted people, listed in the standard, who made up X4DSK. All these were always ready, willing, and able to advise and assist. My regret is that I could not see my way clear to check around more by mail and telephone; we might have made faster headway. At any rate, by the time the standard was published, its arrangement was a de facto standard in Oregon, and applications were spreading elsewhere.

It is relevant here to acknowledge also the insight and helpfulness of three gentlemen who died in 1971, four years before X4DSK was appointed. I refer to C. E. Ginder, Henry Umstead, and R. L. Deinlinger.

## More to Dvorak, Typewriting Behavior, than you may think

J. C. Raymond, of Hawthorne, California, is enthusiastic about the book *Typewriting Behavior*. "It taught me how to relax," he says, "something that I never had learned anywhere else." Not really a rare book, *Behavior* is in many libraries, every page of every copy showing signs of much study. In private libraries, in mint condition, it is scarce.

**FOR SALE:** Almost new SCM Coronamatic 2200 with ASK Dvorak keyboard. Carrying case and short ASK typing course manual included. \$400 or best offer. Katie Collins (219 234 0131 or P.O. Box 4123, South Bend, IN 46634).

**FOR RENT** — Motion picture film, "Motion Study of the Dvorak Simplified Keyboard," 16mm., black and white, silent, 20 minutes. Old but good. View it more than once, the better to appreciate the difference in hand position. \$10 per week. Order from Quick Strokes, Box 643, West Sacramento, CA 95691.

**FOR RENT** — Videotape, "Typewriters: Dvorak Made a Better One," narrated by Albert C. Kolb, Carmel (California) Middle School, time 14 minutes and 19 seconds. Narrator and secretary demonstrate on interesting and innovative alternative to the standard keyboard. Motivates student interest in the typewriter and in developing skills. In UCA 30 cassette. Per week \$10. Shipping weight 1 lb., 12 ozs. Quick Strokes, Box 643, West Sacramento, CA 95691.

  
**MODERN KEYBOARDS**  
by KOLB

**SCM -ASKs**

2500s  
Classic 12s  
1770 Juarez St., Seaside, CA 93955  
(408) 394-4284



## Editorial comment by the DIF president

As I continue my editorial comments, the more I see of keyboard development, the more I am convinced that the Dvorak or some improvement over the Qwerty is in the cards. The amount of cooperation and positive response to the new standard has been overwhelming. For starters the American National Standards Institute has shown its real colors in its total involvement in helping to advertise X4.22 as well as the new X4.23 Qwerty (for your information the X4.23 had to be reapproved, as do all standards, last year. All ANSI standards must be approved every five years).

In any event, the Dvorak standard, over which we are all so proud and happy, has shown a new-kid-on-the-street syndrome at ANSI. People are much interested in it as it is new and different. We thank ANSI for its cooperation.

CBEMA in Washington under the guidance of Catherine Kachurik has helped us through the years to standardization. Without Cathy and Emily Hulett this feat could never have been achieved.

Of course the X4-DSK committee deserves a tremendous toast for all they did to get this thing on to X3. I would like to commend Phil Davis for his exemplary job in heading up the committee in such a fine manner. I know he had some tough days, but he stuck by it.

## Recent magazine articles

Byte for May, Inc in June, Mass Technology in April, Harvard Crimson in April, Computer World in April, InfoWorld in April, Philadelphia Inquirer in April, Chicago Sun-Times in May. Actually folks pick up any computer magazine today and you are apt to see something about the Dvorak keyboard.

## General conclusions about computer conversion

Contact has been made with the major computer companies. As long as a machine (i.e. typewriter or computer) is electronic it is possible to remap it to Dvorak. Any of the separate keyboards can be made into Dvorak also. It is simply a case of all of us getting out there and making this keyboard better known.

A word of caution — we have to be consistent in how we describe this keyboard. This is why I cannot emphasize too strongly the need to have a clearing house for Dvorak information. I have volunteered to charge the Dvorak International Federation with that duty. This is why the federation was formed in the first place.

Accuracy is the name of the game now. This office here in Vermont now has both a computer and a copier, both of which are invaluable to the running of a smooth ship. I shall work with Phil as I have done in the past. We both plan to see this thing continue its uphill swing with as few hitches as possible.

## Successful show

The exhibit at the Cabot Science Lab at Harvard went very well. We picked up a lot of new "customers' " interest in that haven of Academia. It takes that sort of exposure to really drum up interest. Hats off to my very good friend Dick Land for a job well done. He went far beyond the call of duty on that one.

Dick, by the way, is on a fascinating trip to Indonesia to view the eclipse in June and then on to Australia afterward. Call or write to me, Virginia Russell, at 802-247-6020, 11 Pearl St., Brandon, VT. If you have any Australian connections that Dick might be able to contact while Down Under, I will get the word to him.

## Filling a long-felt want — the rationale for Dvorak keying

For DIF branch building, for motivation for pretraining and retraining, for the enlightenment of schools, business, industry, government, and the military, for the continued availability of the versatile equipment, you need Dvorak, *There Is a Better Typewriter Keyboard*.

You know the Dvorak advantages, but does your neighbor? Quicker learning — at least twice the learning pace, for beginners, as for the conventional arrangement. Intrinsic accuracy — greatly reduced finger travel and hence fewer stumbling blocks, reduced emotional stress, with a consequent reduction in muscular tension and fatigue.

The American National standard, ANSI X4.22, defines the alternate arrangement but does not give the rationale for it. *There Is* does give the rationale, which is not, to everybody, obvious from the diagram. You need both — X4.22-1983 from ANSI or DIF, and *There Is* . . . from Quick Strokes, Postoffice Box 643, West Sacramento, California 95691. Telephone 916-372-7372.

Single copies are five dollars at QS, or, in quantities of ten or more, three dollars a copy. Plus, in California, six per cent sales tax. For quantities above 66, query Quick Strokes.

## Opinion of Professor Kroemer

From a letter from the director of the ergonomics laboratory at Virginia Polytechnic Institute and State University, Professor K. H. E. Kroemer, Dr. Ing., we quote,

"... the work which I did quite a few years ago really has very little to do with your interest of changing keys on the keyboard. In fact, the experiments that we performed did, on purpose, not touch upon this subject. Hence, I have no personal evidence about the superiority of different arrangements, although I certainly agree that there appear to be reasons, from a physiological and biomechanical point of view, to believe that other than the QWERTY arrangements might be more suitable, depending however on the language used."

## New opportunities in innovation for small business

Under Public Law 97-219, the Small Business Innovation Development Act, participating federal agencies must create a Small Business Innovation Research Program. Under these programs, up to \$45 million dollars will be awarded in Fiscal 1983. The master schedule of future SBIR solicitations comes from SBIR, U.S. Small Business Administration, 1441 L Street, NW, Washington, DC 20416.

## Caution

The directions for converting the Apple IIe computer to an alternate arrangement that were given in Quick Strokes 36, 1983 Spring, refer to units of that model with a "mother board" which has already been superseded. Check with your vender or with the Dvorak federation. The Apple III always did have the Dvorak option.

Another caution: Although the alphabetical characters in the diagram on the back, the address page, of QS 35, 1983 Winter, conform to American National Standard X4.22, the locations of the special symbols do not. The QS editor-publisher is at fault.

## Quick Strokes

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